

### **Abstract**

**A scaleable, broadband wireless system for providing radio access to a metropolitan area. The metropolitan area is subdivided into overlapping cellular areas each having a base station for communication with network interface units at customer sites within each cell. ATM Radio Interface Cards (ARICs), both time division multiple access (TDMA) and frequency division multiple access (FDMA), in each base station implement protocols for bi-directionally linking the NIUs with the ATM backbone. FDMA ARICs provide point to point radio access between base stations over intercell links. The capacity of the system can be scaled by adding the appropriate ARICs as required to meet demand.**

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